CHAPTER VI
PAVEMENT STRUCTURE DESIGN

FLEXIBLE ESAL's	TOTAL ASPHALT THICKNESS (in)				TOTAL ASPHALT THICKNESS (mm)			
100,000,000 (Heavy Duty)	15	17	18	20	375	425	450	500
50,000,000 (**)	13	15	17	19	325	375	425	475
25,000,000 (Medium Duty)	12	14	15	17	300	350	375	425
15,000,000	11	13	14	16	275	325	350	400
8,000,000	10	12	13	14	250	300	325	350
4,000,000	9	11	12	13	225	275	300	325
2,000,000	8	10	11	12	200	250	275	300
1,000,000	8	9	10	11	200	225	250	275
500,000	7	8	9	10	175	200	225	250
265,000	*	6.00	7	8	*	150	175	200
75,000	*	*	*	6	*	*	*	150
Soil Group Index (Resilient Modulus)	0-5 (7300)	6-10 (4955)	11-15 (3685)	16-20 (2515)	0-5 (7300)	6-10 (4955)	11-15 (3685)	16-20 (2515)

The values in this table were developed using the 1986 AASHTO design criteria.

All Heavy Duty pavements will be placed on a Stabilized Permeable Base with a drainage system, on a 4 in. [100 mm] Type 1 Base. All Medium Duty pavements will be placed on a 4 in. [100 mm] Type 5 Base with a drainage system. All Light Duty pavements will be placed on a 4 in. [100 mm] Type 1 Base. Rock Base, minimum of 18 in. [0.45 m] thick, may be substituted for either base system when available on the job site or economically practical to haul in.

The values shown under "Flexible ESALs" are the maximum numbers expected to be accumulated in one direction of traffic only over the life of the pavement, prior to adding additional structure. If two-way traffic ESALs are furnished, divide by two and use the result to decide which row of the table to use. Thickness units and Soil Group Index determine the correct column to use. Use 35-year ESALs for all projects except short bridge projects, in which case use 20-year ESALs.

* A minimum of 5-$^{3}/_{4}$" [145 mm].

** This entry is included for special design considerations but would be seldom used.

Flexible Pavement Thickness Selection Table